WHAT IS CLAIMED IS:

1. A composition comprising a recombinant polynucleotide that encodes a modified blood clotting factor, a functional variant thereof, or a functional subsequence thereof, wherein the modification comprises a proteolytic cleavage site not normally present in the factor, and wherein the cleavage site is cleaved when expressed in an animal cell.

2. The composition of claim 1, wherein the blood clotting factor is Factor VII.

3. The composition of claim 1, wherein the proteolytic cleavage site is mammalian.

4. The composition of claim 1, wherein the proteolytic cleavage site comprises a PACE/furin site, or functional variant thereof.

5. The composition of claim 1, wherein the proteolytic cleavage site comprises a plurality of basic amino acid sequences.

6. The composition of claim 1, wherein the proteolytic cleavage site comprises an Arg-Lys-Arg-Arg sequence.

7. The composition of claim 1, wherein the proteolytic cleavage site is a viral cleavage site.

8. The composition of claim 7, wherein the viral cleavage site comprises a retroviral cleavage site.

9. The composition of claim 8, wherein the retroviral cleavage site is an envelope polypeptide cleavage site.

10. The composition of claim 2, wherein the proteolytic cleavage site is located between about amino acids 140 and 160 of Factor VII.

11. The composition of claim 2, wherein the proteolytic cleavage site is located between amino acids 152 and 153 of Factor VII.

12. The composition of claim 2, wherein cleavage of the site produces a Factor VIIa fragment having an amino-terminal isoleucine.

13. The composition of claim 2, wherein the proteolytic cleavage site is located between arginine 152 and isoleucine 153 of Factor VII.

14. The composition of claim 1, wherein the animal cell is mammalian.

15. The composition of claim 14, wherein the mammalian cell is human.

16. The composition of claim 1, wherein the functional variant has one or more conservative amino acid substitutions of wild type Factor VII sequence.

17. The composition of claim 1, wherein the functional variant comprises a Factor VII having increased activity relative to wild type Factor VII.

18. The composition of claim 1, wherein the functional variant comprises a Factor VII having increased stability *in vivo* relative to wild type Factor VII.

19. The composition of claim 1, wherein the functional variant comprises a Factor VII having decreased immunogenicity relative to wild type Factor VII.

20. The composition of claim 1, wherein the Factor VII is mammalian.

21. The composition of claim 20, wherein the Factor VII is primate, canine, feline, porcine, equine or bovine.

22. The composition of claim 21, wherein the primate is human.

23. The composition of claim 1, further comprising a 5' or 3' regulatable or tissue specific expression element.

24. The composition of claim 23, wherein the 5' regulatable or tissue specific expression element comprises a promoter.

25. The composition of claim 24, wherein the tissue-specific promoter confers expression of the modified blood clotting factor in muscle, liver, kidney or blood vessel endothelium.

26. The composition of claim 23, wherein the regulatable expression element comprises elongation factor 1α promoter.

27. The composition of claim 24, wherein the promoter comprises a skeletal muscle actin promoter or a muscle creatine kinase promoter.

28. The composition of claim 1, further comprising a vector.

29. The composition of claim 28, wherein the vector comprises a vector suitable for gene therapy.

30. The composition of claim 28, wherein the modified blood-clotting factor comprises Factor X or protein C.

31. The composition of claim 28, wherein the vector comprises an adeno-associated virus (AAV) or adenovirus vector.

32. The composition of claim 28, wherein the vector comprises a retroviral vector.

33. A polypeptide encoded by the polynucleotide of claim 1.

34. The composition of claim 1, further comprising a cell.

35. The composition of claims 1 or 33, further comprising a pharmaceutically acceptable excipient.

36. The composition of claim 35, further comprising a colloidal dispersion system.

37. The composition of claim 36, wherein the colloidal dispersion system comprises a liposome.

38. A method for treating a bleeding or clotting disorder of an animal having or at risk of having a bleeding or clotting disorder comprising administering to the animal the composition of any of claims 1 to 37.

39. The method of claim 38, wherein the bleeding disorder is amenable to treatment with Factor VII.

40. The method of claim 38, wherein the bleeding disorder comprises hemophilia.

41. The method of claim 40, wherein the hemophilia comprises hemophilia A.

42. The method of claim 40, wherein the hemophilia comprises hemophilia B.

43. The method of claim 38, wherein the bleeding disorder comprises Glanzmann's thrombasthenia.

44. The method of claim 38, wherein the bleeding disorder comprises Bernard-Soulier's thrombasthenia.

45. The method of claim 38, wherein the animal produces inhibitor antibodies that bind to a blood clotting factor.

46. The method of claim 45, wherein the blood clotting factor is Factor VIII.

47. The method of claim 38, wherein the animal is a mammal.

48. The method of claim 47, wherein the mammal is a human.

49. The method of claim 38, wherein the composition is administered by injection.